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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,388	04/19/2004	Norio Koma	57810-100	9741

7590 07/11/2006

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EXAMINER

VU, PHU

ART UNIT PAPER NUMBER

2871

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/826,388

Applicant(s)

KOMA ET AL.

Examiner

Phu Vu

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 5, 16 and 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-15 and 18-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/15/06, 4/19/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 4/19/06 have been fully considered but they are not persuasive. Regarding claims 1 and 13, applicant has amended the claims to incorporate the limitation of "each pixel display region having a reflection region and a transmissive region and the second region corresponding to the transmissive region continuously formed among adjacent pixels." Applicant has argued that this limitation is not met by the reference because the reference fails to show the transmissive region continuously formed among adjacent pixels. However, this is not what the claim states, as it refers to a second region that corresponds to the transmissive region extending between adjacent pixels. The second region does correspond to the transmissive region in each pixel from the figures cited below in the way that insulating films are not formed in the transmissive regions. The "second region" extends across adjacent pixels however the transmission region itself does not.

If applicant is requiring that the transmission region itself extends across multiple pixels than this must be claimed. Even taking into consideration this interpretation of the claim to mean the transmission region itself and not the second region the reference meets the limitation in the same way the reference does. Applicant has argued that the presence of a light shield between adjacent pixels fails to meet this limitation, however in applicant's own invention applicant shows gate (5a) and data lines (9a referred to as "drain lines) which for all intents and purposes are a "light shield" when these lines are made of opaque material. Applicant's specification indicates the gate line is made of

Molybdenum [0042-0043] and the data line formed of a Molybdenum-Aluminum-Molybdenum layer structure [0044-0045] all of which are opaque, therefore it is impossible for the transmission region to extend between adjacent pixels without data and gate lines made of a transparent material which is not taught by the specification.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 1-4, 6-15 and 18-24 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Regarding claims 1-4, 6-15 and 18-24, the claims suggest than a second region corresponding to a transmissive region is continuously formed among adjacent regions. From the figures and specification (see response to arguments) it is impossible to assess whether the scope of the claim refers to the second region or the transmissive region extends across adjacent pixels however both interpretations are addressed in the arguments above.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1-4, 6-7, 9-15, 18-19, and 21-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Ozawa 6956632.**

**Regarding claims 1 and 13,** Ozawa teaches a display including transmissive and reflective regions comprising: a first region having a convex insulating film(fig. 4B element 60) formed in a region corresponding to said reflection region (31) on a substrate, an orientation film (12) formed so as to cover said convex insulating film and second region, wherein a second region in which said convex insulating film, wherein a second region in which said convex insulating film is not formed is continuously formed among adjacent pixels (region 32) and each pixel display region having a reflection region and a transmissive region and the second region corresponding to the transmissive region continuously formed among adjacent pixels (see fig. 4A &B).

**Regarding claim 2-3, 14 and 15,** the reference shows at both ends of the second region is disposed outside of the display region (see fig. 4A).

**Regarding claim 4,** the reference shows the second region formed continuously coming adjacent pixels in a first direction (see figure 4A).

**Regarding claim 6 and 18,** the reference teaches the substrate being the substrate in which the TFT is formed (4B element 10).

**Regarding claim 7 and 19,** the reference teaches the substrate is said substrate in which the TFT is not formed (see fig. 8 element 20) and further comprises a color filter. formed between said substrate and said orientation layer (see fig. 8 element 22).

**Regarding claim 9 and 21**, the reference teaches the substrate in which the TFT is not formed and said convex insulating film comprises an insulating part integrally formed in said substrate (see fig. 8 element 6).

**Regarding claims 10-11, and 22-23**, the reference teaches the second region so as to have a narrowed part between said adjacent pixels and provided at a boundary between said pixels (see fig. 4A). The claim recites a "narrowed" part between adjacent pixels however this does not exclude an interpretation of the entire second region being narrowed. Therefore it will be narrowed at the pixel boundary and the pixel region.

**Regarding claim 12 and 24**, the reference teaches the second region is formed so as to extend in the first direction and divided into a plurality of regions along a first direction (see fig. 4A).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozawa in view of Fujimori US 20030063244.**

**Regarding claims 8 and 20**, Ozawa discloses all the limitations of claims 8 and 20 except, a color filter having an opening at a part corresponding to a reflective region. Fujimori teaches color filters in a transfective display having an opening (fig. 10 44a1) corresponding to the reflective region that improves display quality/ improves brightness

(see [0011-0012]). Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to apply a color filter having an opening corresponding to the reflective region to improve display quality/brightness.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phu Vu whose telephone number is (571)-272-1562. The examiner can normally be reached on 8AM-5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571)-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phu Vu  
Examiner  
AU 2871

  
ANDREW SCHECHTER  
PRIMARY EXAMINER